Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for determining a location of a mobile unit, comprising: measuring a wireless signal strength; comparing the measured wireless signal strength to a table of mathematically estimated wireless signal strengths and ~~known~~ corresponding mobile unit locations ~~of the mobile unit~~; finding a table entry whose mathematically estimated wireless signal strength is closest, by distance in signal space, to the measured wireless signal strength; and, determining the location of the mobile unit with reference to the found table entry.

2. (Currently Amended) The method of claim 1 wherein the determining the location of the mobile unit with reference to the found table entry includes determining the location of the mobile unit to be proximate to ~~a known location corresponding to~~ the found table entry's corresponding mobile unit location.

3. (Currently Amended) The method of claim 1 wherein the finding the table entry whose mathematically estimated wireless signal strength is ~~most similar~~ closest to the measured wireless signal strength includes finding a plurality of table entries and wherein the determining the location of the mobile unit with reference to the found table entry includes determining the location of the mobile unit to be proximate to a spatial average of ~~known locations corresponding to~~ the found plurality of table entries' corresponding mobile unit locations.

4. (Currently Amended) The method of claim 3 wherein the determining the location of the mobile unit to be proximate to a spatial average of ~~known locations corresponding to~~ the found plurality of table entries' corresponding mobile unit locations includes multiplying each ~~known~~ found table entry's corresponding mobile unit location by a weighting factor prior to the spatial averaging ~~of the known locations~~.

5. (Currently Amended) The method of claim 1 wherein the measuring the wireless signal strength includes measuring, at the mobile unit, a wireless signal strength of a base station, and wherein the table of mathematically estimated wireless signal strengths and ~~known~~ corresponding mobile unit locations ~~of the mobile unit~~ includes mathematical estimates of base station wireless signal strengths at the corresponding mobile unit locations ~~the wireless signal strength of the base station~~.

6. Canceled

7. Canceled

8. Canceled

9. (Currently Amended) The method of claim ~~8~~ 5 wherein the mathematical~~ly~~ estimate~~sing, at the mobile unit in the known location, the~~ of base station wireless signal strengths ~~of the base station includes~~ at the corresponding mobile unit locations are derived by performing steps comprising

determining a reference base station wireless signal strength ~~of the base station~~ at a reference distance from the base station.

10. (Currently Amended) The method of claim ~~8~~ 5 wherein the mathematically ~~estimatesing, at the mobile unit in the known location, the~~ of base station wireless signal strengths ~~of the base station includes~~ at the corresponding mobile unit locations are derived by performing steps comprising determining a distance between the base station and the ~~known~~ corresponding mobile unit locations.

11. (Currently Amended) The method of claim ~~8~~ 5 wherein the mathematically ~~estimatesing, at the mobile unit in the known location, the~~ of base station wireless signal strengths ~~of the base station includes~~ at the corresponding mobile unit locations are derived by performing steps comprising: determining an existing number of walls between the base station and the ~~known~~ corresponding mobile unit locations; and determining a wall attenuation factor.

12. (Currently Amended) The method of claim 11 wherein the determining the existing number of walls ~~between the base station and the known location~~ includes using a line clipping algorithm.

13. (Currently Amended) The method of claim 11 wherein the determining the existing number of walls ~~between the base station and the known location~~ includes determining a practical limit number of walls between the base station and the ~~known~~ corresponding mobile unit locations.

14. (Currently Amended) The method of claim 1 wherein the measuring the wireless signal strength includes measuring, at a base station, a wireless signal strength of the mobile unit, and wherein the table of mathematically estimated wireless signal strengths and ~~known~~ corresponding mobile unit locations ~~of the mobile unit~~ includes, for mobile units at the corresponding mobile unit locations, mathematical estimates of mobile unit wireless signal strengths at one or more base stations ~~the wireless signal strength of the mobile unit~~.

15. Canceled

16. Canceled

17. Canceled

18. (Currently Amended) The method of claim ~~17~~ 14 wherein the mathematically ~~estimatesing, at the base station, the~~ of mobile unit wireless signal strengths ~~of the mobile unit in the known location includes~~ at the one or more base stations are derived by performing steps comprising determining a reference mobile unit wireless signal strength ~~of the mobile unit in the known location~~ at a reference distance from the mobile unit ~~in the known location~~.

19. (Currently Amended) The method of claim ~~17~~ 14 wherein the mathematically ~~estimatesing, at the base station, the~~ of mobile unit wireless signal strengths ~~of the mobile unit in the known location~~

~~includes~~ at the one or more base stations are derived by performing steps comprising determining a distance between the one or more base stations and the ~~known~~ corresponding mobile unit locations.

20. (Currently Amended) The method of claim ~~17~~ 14 wherein the mathematically~~y~~ estimates~~ing, at the base station, the~~ of mobile unit wireless signal strengths ~~of the mobile unit in the known location includes~~ at the one or more base stations locations are derived by performing steps comprising: determining an existing number of walls between the one or more base stations and the ~~known~~ corresponding mobile unit locations; and determining a wall attenuation factor.

21. (Currently Amended) The method of claim 20 wherein the determining the existing number of walls ~~between the base station and the known location~~ includes using a line clipping algorithm.

22. (Currently Amended) The method of claim 20 wherein the determining the existing number of walls ~~between the base station and the known location~~ includes determining a practical limit number of walls between the one or more base stations and the ~~known~~ corresponding mobile unit locations.

23. (Currently Amended) A computer-readable medium having computer-executable instructions for performing steps, comprising: measuring a wireless signal strength; comparing the measured wireless signal strength to a table of mathematically estimated wireless signal strengths and ~~known~~ corresponding mobile unit locations ~~of the mobile unit~~; finding a table entry whose mathematically estimated wireless signal strength is closest, by distance in signal space, to the measured wireless

signal strength; and, determining the location of the mobile unit with reference to the found table entry

24. (Currently Amended) The computer-readable medium of claim 23 wherein the determining the location of the mobile unit with reference to the found table entry includes determining the location of the mobile unit to be proximate to ~~a known location corresponding to~~ the found table entry's corresponding mobile unit location.

25. (Currently Amended) The computer-readable medium of claim 23 wherein the finding the table entry whose mathematically estimated wireless signal strength is ~~most similar~~ closest to the measured wireless signal strength includes finding a plurality of table entries and wherein the determining the location of the mobile unit with reference to the found table entry includes determining the location of the mobile unit to be proximate to a spatial average of ~~known locations corresponding to~~ the found plurality of table entries' corresponding mobile unit locations.

26. (Currently Amended) The computer-readable medium of claim 25 wherein the determining the location of the mobile unit to be proximate to a spatial average of ~~known locations corresponding to~~ the found plurality of table entries' corresponding mobile unit locations includes multiplying each ~~known~~ found table entry's corresponding mobile unit location by a weighting factor prior to the spatial averaging ~~of the known locations~~.

27. (Currently Amended) The computer-readable medium of claim 23 wherein the measuring the wireless signal strength includes measuring, at the mobile unit, a wireless signal strength of a base station, and wherein the table of mathematically estimated wireless signal strengths and ~~known~~ corresponding mobile unit locations ~~of the mobile unit~~ includes mathematical estimates of base station wireless signal strengths at the corresponding mobile unit locations ~~the wireless signal strength of the base station~~.

28. Canceled

29. Canceled

30. Canceled

31. (Currently Amended) The computer-readable medium of claim ~~30~~ 27 wherein the mathematically ~~estimatesing, at the mobile unit in the known location, the~~ of base station wireless signal strengths ~~of the base station includes~~ at the corresponding mobile unit locations are derived by performing steps comprising determining a reference base station wireless signal strength ~~of the base station~~ at a reference distance from the base station.

32. (Currently Amended) The computer-readable medium of claim ~~30~~ 27 wherein the mathematically ~~estimatesing, at the mobile unit in the known location, the~~ of base station wireless signal strengths ~~of the base station includes~~ at the corresponding mobile unit locations are derived

by performing steps comprising determining a distance between the base station and the ~~known~~ corresponding mobile unit locations.

33. (Currently Amended) The computer-readable medium of claim ~~30~~ 27 wherein the mathematically ~~estimatesing, at the mobile unit in the known location, the~~ of base station wireless signal strengths ~~of the base station includes~~ at the corresponding mobile unit locations are derived by performing steps comprising: determining an existing number of walls between the base station and the ~~known~~ corresponding mobile unit locations; and determining a wall attenuation factor.

34. (Currently Amended) The computer-readable medium of claim 33 wherein the determining the existing number of walls ~~between the base station and the known location~~ includes using a line clipping algorithm.

35. (Currently Amended) The computer-readable medium of claim 33 wherein the determining the existing number of walls ~~between the base station and the known location~~ includes determining a practical limit number of walls between the base station and the ~~known~~ corresponding mobile unit locations.

36. (Currently Amended) The computer-readable medium of claim 23 wherein the measuring the wireless signal strength includes measuring, at a base station, a wireless signal strength of the mobile unit, and wherein the table of mathematically estimated wireless signal strengths and ~~known~~ corresponding mobile unit locations ~~of the mobile unit~~ includes, for mobile units at the

corresponding mobile unit locations, mathematical estimates of mobile unit wireless signal strengths at one or more base stations ~~the wireless signal strength of the mobile unit~~.

37. Canceled

38. Canceled

39. Canceled

40. (Currently Amended) The computer-readable medium of claim ~~39~~ 36 wherein the mathematically ~~estimatesing, at the base station, the~~ of mobile unit wireless signal strengths ~~of the mobile unit in the known location includes~~ at the one or more base stations are derived by performing steps comprising determining a reference mobile unit wireless signal strength ~~of the mobile unit in the known location~~ at a reference distance from the mobile unit ~~in the known location~~.

41. (Currently Amended) The computer-readable medium of claim ~~39~~ 36 wherein the mathematically ~~estimatesing, at the base station, the~~ of mobile unit wireless signal strengths ~~of the mobile unit in the known location includes~~ at the one or more base stations are derived by performing steps comprising determining a distance between the one or more base stations and the ~~known~~ corresponding mobile unit locations.

42. (Currently Amended) The computer-readable medium of claim ~~39~~ 36 wherein the mathematically ~~estimatesing, at the base station, the~~ of mobile unit wireless signal strengths ~~of the mobile unit in the known location includes~~ at the one or more base stations locations are derived by performing steps comprising: determining an existing number of walls between the one or more base stations and the ~~known~~ corresponding mobile unit locations; and determining a wall attenuation factor.

43. (Currently Amended) The computer-readable medium of claim 42 wherein the determining the existing number of walls ~~between the base station and the known location~~ includes using a line clipping algorithm.

44. (Currently Amended) The computer-readable medium of claim 42 wherein the determining the existing number of walls ~~between the base station and the known location~~ includes determining a practical limit number of walls between the one or more base stations and the ~~known~~ corresponding mobile unit locations.

45. (New) A mobile unit comprising: a wireless interface hardware, wherein the wireless interface hardware obtains a wireless signal strength; a memory storage, storing a table of mathematically estimated wireless signal strengths and corresponding mobile unit locations; and a central processing unit, wherein the central processing unit compares the obtained wireless signal strength to the table of mathematically estimated wireless signal strengths and corresponding mobile unit locations, finds a table entry whose mathematically estimated wireless signal strength is closest,

by distance in signal space, to the obtained wireless signal strength, and determines the location of the mobile unit with reference to the found table entry.

46. (New) The mobile unit of claim 45 wherein the determining the location of the mobile unit with reference to the found table entry includes determining the location of the mobile unit to be proximate to the found table entry's corresponding mobile unit location.

47. (New) The mobile unit of claim 45 wherein the finding the table entry whose mathematically estimated wireless signal strength is closest to the obtained wireless signal strength includes finding a plurality of table entries and wherein the determining the location of the mobile unit with reference to the found table entry includes determining the location of the mobile unit to be proximate to a spatial average of the found plurality of table entries' corresponding mobile unit locations.

48. (New) The mobile unit of claim 47 wherein the determining the location of the mobile unit to be proximate to a spatial average of the found plurality of table entries' corresponding mobile unit locations includes multiplying each found table entry's corresponding mobile unit location by a weighting factor prior to the spatial averaging.

49. (New) The mobile unit of claim 45 wherein the obtaining the wireless signal strength includes measuring, at the mobile unit, a wireless signal strength of a base station, and wherein the table of mathematically estimated wireless signal strengths and corresponding mobile unit locations

includes mathematical estimates of base station wireless signal strengths at the corresponding mobile unit locations.

50. (New) The mobile unit of claim 49 wherein the mathematical estimates of base station wireless signal strengths at the corresponding mobile unit locations are derived by performing steps comprising: determining an existing number of walls between the base station and the corresponding mobile unit locations; and determining a wall attenuation factor.

51. (New) The mobile unit of claim 50 wherein the determining the existing number of walls includes using a line clipping algorithm.

52. (New) The mobile unit of claim 51 wherein the determining the existing number of walls includes determining a practical limit number of walls between the base station and the corresponding mobile unit locations.

53. (New) The mobile unit of claim 45 wherein the obtaining the wireless signal strength includes requesting, from a base station, a wireless signal strength of the mobile unit as measured at the base station, and wherein the table of mathematically estimated wireless signal strengths and corresponding mobile unit locations includes, for mobile units at the corresponding mobile unit locations, mathematical estimates of mobile unit wireless signal strengths at one or more base stations.

54. (New) The mobile unit of claim 53 wherein the mathematical estimates of mobile unit wireless signal strengths at the one or more base stations locations are derived by performing steps comprising: determining an existing number of walls between the one or more base stations and the corresponding mobile unit locations; and determining a wall attenuation factor.

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55. (New) The mobile unit of claim 54 wherein the determining the existing number of walls includes using a line clipping algorithm.

56. (New) The mobile unit of claim 54 wherein the determining the existing number of walls includes determining a practical limit number of walls between the one or more base stations and the corresponding mobile unit locations.